From: Wozniak, Chris [wozniak.chris@epa.gov]
Sent: 3/8/2017 12:37:26 AM
To: Kough, John [Kough.John@epa.gov]
Subject: NAS report on allergens
Attachments: Prepub_Preparing_For_Future_Products_Of_Biotechnology-CAW-030517.pdf

John,

Any thoughts on this? I am attaching the report (version has my snarky comments included). This is from page 172 (page # 155).
Thanks
Chris

One example that illustrates a near-term opportunity is in computational assessment of allergen po-tential of a gene or gene product. Some current risk-assessment frameworks require detection and assess-ment of "stop to stop" codon hypothetical reading frames in all six frames (Young et al., 2012), some with no minimum length (EFSA, 2011b). Any hypothetical reading frame thus detected is taken through the computational analysis for allergenicity (Schein et al., 2007; Goodman et al., 2016). The increased use of computer-aided design systems for rapid design and assembly iteration represents an opportunity to incorporate a computational assessment early in the development process to minimize or eliminate the number of these hypothetical open reading frames during initial construct design in anticipation of a fu-ture regulatory assessment process (Galdzicki et al., 2014; Christen et al., 2015; Nielsen et al., 2016).